IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF ARIZONA

Center for Biological Diversity, et al., Plaintiffs, v. David Bernhardt, et al., Defendants.	No. CV-20-00106-TUC-RCC **ORDER**

Before the Court is Plaintiffs Center for Biological Diversity, Maricopa Audubon Society, and Sierra Club's (collectively "Plaintiffs") Motion for Summary Judgment (Doc. 17)[1] and Motion to Complete or Supplement the Administrative Record (Doc. 24). The Court also considers Defendants United States Fish and Wildlife Service ("FWS"), David Bernhardt (in his official capacity as Secretary of the Interior), Aurelia Skipwith (in her official capacity as Director of the FWS), Amy Leuders (in her official capacity as Regional Director of FWS Southwest Region), Mark Esper (in his official capacity as Secretary of

[1] Documents and the associated page numbers refer to the CM/ECF generated documents and page numbers for this case.

Defense), Ryan McCarthy (in his official capacity as Secretary of the Army), and Laura Potter's (in her official capacity as Senior Commander of Fort Huachuca) (collectively "Defendants" or "Agencies") Combined Cross-Motion for Summary Judgment. (Doc. 25.)

This matter challenges the conclusion in FWS's 2014 Biological Opinion ("BiOp"), which determined that Fort Huachuca's ("Fort") groundwater pumping[2] near the San Pedro River Basin did not jeopardize the existence of four species: the western yellow-billed cuckoo, the southwestern willow flycatcher, the Huachuca water umbel, and the northern Mexican gartersnake. (Doc. 1.) According to Plaintiffs, the Fort erroneously assumed that the purchase of the Preserve Petrified Forest ("PPF") and the Clinton/Drijvers easements would offset the water deficit from the Fort's groundwater pumping. (Doc. 18 at 38–46.) Plaintiffs assert that the Fort's groundwater pumping in fact results in a groundwater deficit that threatens the named species. (*Id.* at 46.) They allege FWS's BiOp was faulty because the projected effects of groundwater pumping did not look far enough into the future; Plaintiffs believe the effects of the Fort's pumping will not be apparent until long after the timeline considered by FWS. (*Id.* at 33–37.) Furthermore, Plaintiffs contend that the BiOp failed to consider the cumulative effects of the Fort's groundwater pumping and climate change. (*Id.* at 38–42.) Finally, Plaintiffs assert that the Agencies failed to reinitiate consultation after the listing of the cuckoo and gartersnake. (*Id.* at 48–55.)

As a result, Plaintiffs claim that the 2014 BiOp was arbitrary and capricious and ask the Court to vacate the BiOp and order reinitiation of consultation. (*Id.* at 63.) Plaintiffs also ask the Court to supplement the Administrative Record ("AR") with several additional documents. (Doc. 24.) The Agencies counter that the Court should grant summary judgment in their favor because the 2014 BiOp was valid. (Doc. 25.) They further assert that supplementation of the AR is inappropriate. (Doc. 27.)

The Court first reviews the statutory framework for claims under the Endangered Species Act, determines where supplementation is appropriate, and then analyzes the parties' cross-summary judgment motions.

[2] The Fort pumps, on average, 5,648 acre-feet per year ("APY") of groundwater. (FWS022569.)

I. STATUTORY AND REGULATORY BACKGROUND

a. The Endangered Species Act

The Endangered Species Act ("ESA"), 16 U.S.C. § 1531, et seq., "is a comprehensive scheme with the broad purpose of protecting endangered and threatened species." *Ctr. for Biological Diversity v. U.S. Bureau of Land Mgmt.*, 698 F.3d 1101, 1106 (9th Cir. 2012); *see also* 16 U.S.C. § 1531.[3] When enacting the ESA, Congress was primarily concerned with "halt[ing] and revers[ing] the trend toward species extinction, whatever the cost." *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978). Yet, the ESA was intended not only "to forestall the extinction of the species (i.e., promote species survival), but to allow a species to recover to the point where it may be delisted." *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004). To address these concerns, the ESA requires federal agencies to adhere to certain procedural and substantive requirements. *Forest Guardians v. Johanns*, 450 F.3d 455, 457 (9th Cir. 2006). These duties are as follows:

1. Informal Consultation and Biological Assessment

"Procedurally, before initiating any action in an area that contains threatened or endangered" land-based species, federal action agencies (in this instance, the Fort) must informally consult with the appropriate consulting agency (in this instance, FWS) "to determine the likely effects of any proposed action on the species and its critical habitat." *Conservation Cong. v. U.S. Forest Serv.*, 720 F.3d 1048, 1051 (9th Cir. 2013). If a listed species may be present in an action area, the action agency must create a Biological Assessment. 16 U.S.C. § 1536(c)(1). The Biological Assessment is used to identify "any endangered species or threatened species which is likely to be affected by such action," *id.*, and to determine whether to engage in formal consultation, 50 C.F.R. § 402.12(k)(1). The Biological Assessment may serve as the basis for a BiOp. 50 C.F.R. § 402.12(k)(2).

2. Formal Consultation and Biological Opinion

If an action agency finds that an action may affect a listed species or its habitat, the

[3] Unless otherwise noted, internal quotation marks and citations have been omitted when quoting and citing authority throughout this Order.

action agency must typically initiate formal consultation with the appropriate consulting agency. 50 C.F.R. § 402.14(a). The formal consultation process culminates in the consulting agency's production of a BiOp that advises the action agency as to whether the proposed action, either alone or in combination with other effects, would endanger the existence of the listed species or adversely modify its habitat. *Conservation Cong.*, 720 F.3d at 1051 (citing 50 C.F.R. § 402.14(g)(4)). The BiOp must conclude whether the agency's action jeopardizes the listed species; this is referred to as the "jeopardy" or "no jeopardy" opinion. 50 C.F.R. § 402.14(h)(1)(iv). An action that jeopardizes a species is one that "reduce[s] appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. The BiOp's "jeopardy" or "no jeopardy" opinion must be based on "the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.14(c), (h)(iv)(A)–(B). A BiOp is a final action that may be reviewed by the district court. *Bennett v. Spear*, 520 U.S. 154, 178 (1997).

Substantively, Section 7 of the ESA imposes an independent and continuing obligation upon action agencies to avoid actions that would jeopardize the existence of a listed species or adversely modify its habitat. 16 U.S.C. § 1536(a)(2). Therefore, the action agency cannot be relieved of its duty to adhere to the ESA simply through compliance with the BiOp; it has an independent duty to ensure that its reliance is not arbitrary or capricious. *Pyramid Lake Paiute Tribe of Indians v. U.S. Dep't of Navy*, 898 F.2d 1410, 1415 (9th Cir. 1990) (determining that while consultation "satisfies procedural obligations," substantive obligations cannot be met through reliance on the BiOp alone); *Wild Fish Conservancy v. Salazar*, 628 F.3d 513, 532 (9th Cir. 2010) ("Arbitrarily and capriciously relying on a faulty Biological Opinion violates [the ESA Section 7] duty.").

To ensure compliance with the independent substantive duties created by Section 7, action agencies like the Fort must reinitiate consultation if: (1) "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered"; (2) the action considered in the BiOp is "subsequently modified in a manner that causes an effect to the listed species or critical habitat that was

not considered in the BiOp"; (3) "a new species is listed or critical habitat designated that may be affected by the identified action"; or (4) the injury to the species (a/k/a "take") is greater than anticipated. 50 C.F.R. § 402.16(a)(1)–(4).

3. Species Proposed for Listing

When a species has been proposed for listing, but is not currently listed, the action agency must "confer" with the consulting agency if an action would "likely jeopardize the continued existence of any proposed species" or "result in the destruction or adverse modification of [the] proposed critical habitat." 16 U.S.C. § 1536(a)(4); 50 C.F.R. § 402.10(c). If the action agency and consulting agency find that a conference is warranted, the agencies may later enter into formal consultation. 50 C.F.R. §§ 402.10(c)–(d). After conferring, the agencies issue a conference opinion. *Id.* The conference opinion "may be adopted as the [BiOp] when the species is listed or critical habitat is designated, but only if no significant new information is developed . . . and no significant changes to the Federal action are made that would alter the content of the opinion." *Id*.

b. District Court's Standard of Review

A court may "set aside the agency decision if it is 'unsupported by substantial evidence' or 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law.'" *Thompson v. U.S. Dept. of Labor*, 885 F.2d 551, 555 (9th Cir. 1989). An agency decision is arbitrary and capricious if the agency "has relied on factors which Congress had not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Nat'l Ass'n of Home Builders v. Defenders of Wildlife*, 551 U.S. 644, 658 (2007).

II. FACTUAL AND PROCEDURAL HISTORY

a. 1999, 2002, and 2007 BiOps

This is not the first time the effects of the Fort's actions on the groundwater along the Upper San Pedro River Basin and the Babocomari River have been challenged. The district court previously determined that FWS's 1999 BiOp—which found that the Fort's

groundwater pumping would not jeopardize the water umbel or the flycatcher—was arbitrary and capricious. *Ctr. for Biological Diversity v. Rumsfeld* ("*Rumsfeld*"), 198 F. Supp. 2d 1139, 1157 (D. Ariz. 2002). The court explained that the 1999 BiOp failed to consider a relevant factor because it "refused to commit to any specific mitigation measures related to its groundwater use or to balance water use on the base . . . ." *Id.*

In 2002, the Agencies issued a new BiOp that was challenged and resulted in reinitiation of consultation and a subsequent BiOp in 2007. *Ctr. for Biological Diversity v. Salazar*, 804 F. Supp. 2d 987, 994 (D. Ariz. 2011). But, in 2011, the district court again found the 2007 BiOp was arbitrary and capricious because it did not (1) evaluate the effects of the Fort's action on the listed species and habitat, (2) rationally link its findings to the no jeopardy conclusion, (3) provide specific mitigation measures, and (4) show the mitigation measures were likely to occur. *Id.* at 1010.

b. 2013 Programmatic Biological Assessment

Subsequent to the court's 2011 ruling, the Fort created a Programmatic Biological Assessment ("PBA") that determined the Fort's actions would have no effect on the flycatcher, may affect the Huachuca water umbel, and would benefit the cuckoo and gartersnake. (ARMY000001.) The PBA evaluated the Fort's actions over a ten-year period, from 2014 to March 2024, and considered the effects of the Fort's actions through 2030. (FWS004630; FWS004764.) The Agencies then reinitiated formal consultation. (ARMY000001–0674.)

c. 2014 BiOp

The formal consultation ended when the instant BiOp was issued in March 2014. (FWS04609–05022.) The 2014 BiOp adopted information from the PBA, including a USGS Groundwater Model and a Groundwater Demand Accounting. (ARMY000555–587; ARMY000653–660.) FWS also included a Conference Opinion for the gartersnake and billed cuckoo. (FWS004860–887; FWS4888.)

i. USGS Groundwater Model

The USGS Groundwater Model assessed groundwater levels both with and without the Fort's action, and then evaluated the impact the Fort's actions would have on baseflows

in the San Pedro River Valley. (FWS004763–765.) The model assumed the Fort's groundwater pumping would remain constant from 2011 to 2030. (ARMY000575–576.) It predicted that the Fort's actions would result in a positive effect on the net regional groundwater component of baseflow in the Upper San Pedro River. (FWS004763; FWS004776–778.) This groundwater surplus did not account for the water savings produced from the Fort's easement purchases. (FWS004763.) FWS determined the Groundwater Model constituted the best available evidence upon which to base the effect of groundwater pumping on baseflows in the San Pedro River Basin. (FWS004765.)

ii. Groundwater Demand Accounting

Also included in the PBA and adopted in part by the 2014 BiOp, the Groundwater Demand Accounting considered groundwater withdrawals, water consumption attributable to the Fort, and mitigation measures—including easement purchases. (ARMY000653–660.) Like the USGS Groundwater Model, the Groundwater Demand also found the Fort's actions would result in water savings through 2022. (FWS004774–775.)

Therefore—based on the findings in the PBA, the USGS Groundwater Model, and the Groundwater Demand Accounting—the 2014 BiOp concluded that the Fort's actions would result in a groundwater surplus and that the Fort's conservation measures would increase baseflows through 2030. (FWS004775–776; FWS004763–764; FWS004771.) As before, FWS limited its assessment of the Fort's actions to a ten-year period (through 2024) and measured changes through 2030, but it determined it could not predict operations further into the future because "there would be significant uncertainty in predicting federal government programs due to federal fiscal laws, the nature of the budget process, and uncertainty of mission requirements." (FWS004630.)

As a result, the 2014 BiOp concluded the Fort's action was not likely to affect the water umbel or adversely modify its habitat. (FWS004334.) In addition, two Conference Opinions in the BiOp determined the Fort's groundwater pumping would not jeopardize the then-unlisted gartersnake, (FWS004860–887; FWS004449) or the cuckoo, (FWS004888–922; FWS004494), or adversely modify the proposed critical habitat of the gartersnake, (FWS004882.) FWS released a revised BiOp on May 16, 2014.

(FWS004609.)

Since the release of the revised 2014 BiOp, the northern Mexican gartersnake was listed as threatened, 79 Fed. Reg. 38,678 (July 8, 2014), and later the yellow-billed cuckoo, 79 Fed. Reg. 59,992 (Oct. 3, 2014).[4]

III. MOTION TO SUPPLEMENT THE ADMINISTRATIVE RECORD

As a preliminary matter, Plaintiffs' Motion to Supplement seeks an order permitting the expansion of the AR to include five documents: (1) an Easement Report ("ER") (Doc. 19-1); (2) an Arizona Republic Article ("AzRA") (Doc. 19-3); (3) a Cochise Conservation and Recharge Network ("CCRN") Presentation (Doc. 19-4); (4) a Climate Science Report (Doc. 19-5); and (5) the Prucha Hydrology Report (Doc. 19-6). Plaintiffs believe the documents show that the Agencies ignored relevant information when coming to their no jeopardy conclusion and when they refused to reinitiate consultation. (Doc. 24 at 18–19.) Specifically, Plaintiffs believe the excluded documents demonstrate that the Fort's conclusion that it had "retired" an actual water use through the purchase of the PPF easement was illusory. (*See generally* Doc. 18 at 39–42.) The illusory savings, Plaintiffs contend, make the "no jeopardy" finding in the 2014 BiOp arbitrary and capricious. (*Id.* at 32, 41, 45.)

a. Standard of Review

The district court's review in ESA litigation is limited to "the administrative record already in existence, not some new record made initially in the reviewing court." *Camp v. Pitts*, 411 U.S. 138, 142 (1973). "The whole administrative record . . . consists of all documents and materials directly or indirectly considered by agency decision-makers and includes evidence contrary to the agency's position." *Thompson*, 885 F.2d at 555. Correspondingly, "[c]ourts . . . may grant a motion to complete the administrative record where the agency has not submitted the 'whole' record." *Id.*

A court starts with the presumption that the administrative record is complete. *Ctr.*

[4] Both the umbel and the flycatcher were listed as endangered species prior to the formulation of the 2014 BiOp. 62 Fed. Reg. 665 (Jan. 6, 1997) (umbel), 60 Fed. Reg. 10695 (Feb. 27, 1995) (flycatcher).

for Biological Diversity v. Wolf, 447 F. Supp. 3d 965, 973 (D. Ariz. 2020). To rebut this presumption, a plaintiff must present clear evidence that identifies the proposed documents with specificity and "non-speculative" reasons why plaintiff believes the agency considered but did not include the documents in the AR. *Oceana, Inc. v. Pritzker* ("*Oceana I*"), No. 16-cv-06784-LHK (SVK), 2017 WL 2670733, at *2 (N.D. Cal. June 21, 2017). However, a court need not consider extra-record evidence when there is no showing that the court must look beyond the AR to determine whether the agency ignored relevant information. *Animal Def. Council v. Hodel*, 840 F.2d 1432, 1437 (9th Cir. 1988), *amended*, 867 F.2d 1244 (9th Cir. 1989).

A court's review of extra-record evidence is limited to instances when (1) the evidence is necessary to decide "whether the agency has considered all the relevant factors and has explained its decision," (2) an "agency has relied on documents not in the record," (3) consideration "explain[s] technical terms or complex subject matter," or (4) plaintiffs show an agency acted in bad faith. *Lands Council v. Powell*, 395 F.3d 1019, 1030 (9th Cir. 2005). "[T]he 'relevant factors' exception only applies when Federal Defendants fail to consider a general subject matter that is demonstrably relevant to the outcome of the agency's decision, not when specific hypotheses and/or conclusions are omitted from consideration." *In re Delta Smelt Consol. Cases*, No. 1:09-CV-1053 OWW DLB, 2010 WL 2520946, at *5 (E.D. Cal. June 21, 2010). "[A] plaintiff must establish more than just that the [extra-record] document is relevant. In fact, the document in question must do more than raise 'nuanced points' about a particular issue; it must point out an 'entirely new' general subject matter that the defendant agency failed to consider." *Pinnacle Armor, Inc. v. United States*, 923 F. Supp. 2d 1226, 1234 (E.D. Cal. 2013).

b. Easement Report ("ER")

First, Plaintiffs assert that prior to the 2014 BiOp, the Agencies used the October 22, 2013 ER to develop the Fort's November 2013 PBA of future Fort activities. (Doc. 24 at 12–14.) The ER informed the Agencies that irrigation on the PPF easement ceased in 2006 and the center pivots that distributed water were no longer in working order. (*Id.* at 12.) Plaintiffs argue Defendants considered the ER because it was disclosed as part of

Plaintiffs' FOIA request and on November 20, 2013, the ER was emailed to Daniel Haws, the Fort's attorney and the overseer of the Fort's PPF easement water savings determination. (*Id.* at 9, n.4.)

Defendants agree that the Court may take judicial notice of the ER because it is a public record and is incorporated by reference as an exhibit to the Deed of Perpetual Conservation Easement for the PPF property. (Doc. 27 at 9–10.) But, Plaintiffs ask that if the Court considers the ER, that it also consider the Deed of Perpetual Conservation Easement for the PPF and the North Dakota State University article *Selecting a Sprinkler Irrigation System*. (*Id.* at 9 (citing Docs. 26-3, 26-4).) Plaintiffs do not object to the inclusion of the deed and the article. (*See* Doc. 29 at 7, n.7.)

Defendants further contend that the ER cannot be used to complete the AR for Plaintiffs' ESA claims or for any challenge to the Army's PBA because Plaintiffs have not shown the Agencies considered the ER when calculating groundwater demand for the PBA. (Doc. 27 at 11.) In support, Defendants note that the ER was emailed on November 20—the same day the deed for the PPF easement was recorded. (*Id.*) By that date, the Agencies had already calculated the overall water savings for retiring the PPF easement as 2,588 APY. (*Id.*) By November 25, the Army had sent the PBA to FWS along with a request to reinitiate consultation. (*Id.* at 12.) So, Defendant argues, the ER was post-decisional, was not considered by the Agencies, and should not be part of the AR. (*Id.*) Defendants state that even if Plaintiffs have shown Defendants possessed the ER, they did not show that the ER was considered in the calculation of groundwater savings. (*Id.*)

Plaintiffs reply that the ER is not post-decisional because it was given to the Agencies six months before the May 16, 2014 BiOp was issued, prior to the completion of the Section 7 consultation process. (Doc. 29 at 4.) Moreover, Plaintiffs assert the Deed for the PPF easement was considered by the Agencies, and the ER is incorporated by reference through the Deed, so it follows that the ER should be included in the AR. (*Id.*) Defendants' choice to ultimately disregard the ER does not prevent it from being included in the record, Plaintiffs contend. (*Id.*) Plaintiffs believe the ER shows that FWS ignored "the fact that irrigation was almost certain not to occur again" prior to the purchase of the easement

because the pivots had been removed. (*Id.* at 5.)

Despite this fact, Defendants counter that the ER does not undermine the Agencies' (1) contention that the historical use of the PPF was agricultural, and (2) determination of the water savings attributed to the PPF purchase. (Doc. 27 at 13.)

"Federal Rule of Evidence 201 permits a court to take judicial notice of facts not subject to reasonable dispute that 'can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned.'" *Friends of the Clearwater v. Higgins*, 523 F. Supp. 3d 1213, 1222 (D. Idaho 2021). In addition, "material considered, but then discounted or otherwise not relied upon, is part of the record." *Oceana, Inc. v. Pritzker* ("*Oceana II*"), No. 16-cv-06784-LHK (SVK), 2017 WL 2670733, at *5 (N.D. Cal. June 21, 2017).

Plaintiffs present non-speculative evidence that the ER was relevant and that the Agencies considered it, but even if they had not, the Court may take judicial notice of the ER. The ER suggests the irrigation system was not functioning at the time of the PPF easement purchase. This is a relevant factor because it weighs against the likelihood of the PPF being used for irrigation in the future and FWS's ability to use any purported water savings for the no jeopardy analysis. Furthermore, the 2014 BiOp states that the "entire irrigation infrastructure remain[ed] in place, and nothing precluded the current or future landowners from irrigating the land." (FWS004639; FWS001609.) The ER contradicts this assertion. Moreover, because the ER was incorporated by reference into the Deed for Perpetual Conservation Easement for the PPF, and the easement purchase provided the basis for the Agencies to claim a groundwater surplus, the Court finds that the Fort considered the ER, at least indirectly. Plaintiffs have met the requirements for supplementing the AR. In addition, with no objection from Plaintiffs, the Court considers Defendants' Deed of Perpetual Conservation Easement for the PPF and the North Dakota State University article *Selecting a Sprinkler Irrigation System*.

After considering the ER, however, the Court finds that it supports the Defendants' position that the Fort's purchase of the PPF easement retired a groundwater use. It is true the ER indicates irrigation ceased in 2006 and the pivots were not functional at the time.

(Doc. 19-1 at 3, 5.) But the ER also states that three agricultural irrigation wells *could still be used* for irrigation and that the property was being leased for agricultural purposes. (*Id.* at 3.) In addition, the *Selecting a Sprinkler Irrigation System* article shows the costs related to repairing sprinkler irrigation systems, supporting Defendants' contention that even with broken pivots, the easement could have been repaired and used for agricultural irrigation. (Doc. 26-4 at 4.) On the whole, the ER suggests that although the easement was not currently being used in such a manner, it was not yet "retired" and could plausibly have been fixed and used for agricultural irrigation in the future. Thus, the Court incorporates the ER into the AR but finds it does not undermine the Fort's conclusions.

c. Arizona Republic Article ("AzRA")

The AzRA is a news story indicating that the real estate listing for the PPF easement was zoned for residential use. (Doc. 19-3 at 3.) Plaintiffs allege the AzRA quoted FWS and the Fort, demonstrating that the document "passed before the eyes" of the Agencies and should be included in the AR. (Doc. 24 at 14.)

Like they claim with the ER, Defendants claim there is no evidence suggesting they reviewed the AzRA. (Doc. 27 at 13.) This article, they state, was released in September 2007, shortly after the 2007 BiOp, not during the consideration of the 2014 BiOp. (*Id.*) In addition, they assert that just because the author spoke to someone in public relations that does not mean that the Agencies' decisionmakers knew of or considered this article. (*Id.* at 14.) Moreover, Defendants claim the article's assertions are double hearsay and not admissible. (*Id.*) Finally, Defendants believe the AzRA could be construed as sales puffery, a way to promote the property in an attempt to sell it. (*Id.*) Sales puffery does not convert the easement from what it was originally used for (agricultural irrigation) to residential use, Defendants claim. (*Id.*) Thus, Defendants assert the AzRA does not undermine FWS's conclusion that purchasing the PPF easement stopped a potential agricultural groundwater use. (*Id.*)

The administrative record includes documents which the decisionmaker reviewed as well as "documents that were considered and relied upon by subordinates who provided recommendations to the decision-maker." *Regents of Univ. of Calif. v. U.S. Dep't of*

Homeland Sec., No. C 17-05211 WHA, 2017 WL 4642324, at *2 (N.D. Cal. Oct. 17, 2017).

The Court finds that Plaintiffs have not shown Defendants considered the AzRA when formulating the 2014 BiOp. Plaintiffs simply say that Defendants' representatives commented in this article but do not indicate that these alleged representatives had any role in the creation of the 2014 BiOp or the Fort's evaluation of groundwater savings. Moreover, the long length of time between the publication of the article in 2007 and the 2014 BiOp weighs against concluding that the Agencies reviewed the AzRA when developing the 2014 BiOp. Therefore, Plaintiffs have not provided clear, non-speculative evidence that the Agencies considered this article.

While the AzRA stated that the PPF easement was listed and marketed for residential development, this does not undermine Defendants' assertion that the PPF easement's prior use was agricultural, or that the purchase eliminated the possibility the easement could be used for agricultural purposes in the future. Because the property was ultimately converted to the PPF easement, the AzRA is not definitive evidence of future use of the land, nor does it undermine Defendants' analysis that the historic use was for agricultural purposes. Therefore, Plaintiffs have not shown the AzRA was relevant to Defendants' determination that the purchase of the easement halted agricultural use indefinitely. Thus, the Court will not supplement the AR with the AzRA article.

d. CCRN Presentation, Climate Science Report, and Prucha Hydrology Report

Plaintiffs claim on December 3, 2020 they provided the Agencies—and the Agencies acknowledged receipt of—three new studies showing the adverse impact of the Fort's groundwater pumping. (Doc. 24 at 15.) At that time, Plaintiffs asked to reinitiate a Section 7(a)(2) consultation based on this new evidence and gave notice of their intent to file a citizen's suit. (*Id.*) Plaintiffs claim Defendants refused, giving rise to Plaintiffs' seventh and ninth causes of action alleging the Agencies violated their Section 7 substantive duty by failing to reinitiate consultation. (Doc. 1 at 47–51.) Plaintiffs believe the documents should be included in the AR because the Agencies considered and possessed these documents when they refused to reinitiate consultation. (*Id.*) Moreover, Plaintiffs assert Defendants cannot ignore a request for reinitiation of consultation simply

by leaving evidence out of the AR, and these documents show there was new information that mandated a new consultation. (*Id.* at 16.)

Defendants respond that these studies should not be part of the AR because Plaintiffs cannot challenge the conclusions in an ESA consultation simply by presenting post-decisional evidence. (Doc. 27 at 14.) Defendants believe that permitting this post-decisional evidence would allow Plaintiffs to create their own AR by mailing a demand letter and including their preferred AR documents on the eve of litigation. (*Id.* at 15.) More pointedly, Defendants claim they did not refuse to reinitiate consultation and had planned to begin consultation in 2021 in preparation of a new Biological Assessment. (*Id.*)

Plaintiffs reply that they do not submit these documents to support their claims that the 2014 BiOp is arbitrary and capricious. (Doc. 29 at 8.) Rather, they are to show that new information required reinitiation of consultation, thus they are not post-decisional. (*Id.* at 9.) Plaintiffs also state Defendants reference the documents in their response to the notice of intent to sue, and that the reference precludes the argument that the studies should be excluded from the AR. (*Id.*)

An ESA citizen-suit claim allows private persons to "commence a civil suit" against a governmental agency for failure to perform any non-discretionary act or duty. 16 U.S.C. § 1540(g)(1)(C). As previously stated, Section 7 of the ESA creates a substantive duty to "insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize" the existence of the species or adversely modify its habitat. 16 U.S.C. § 1536(a)(2). However, an action agency "may not rely solely on a[n] FWS [BiOp] to establish conclusively its compliance with its substantive obligations." *Pyramid Lake Paiute Tribe of Indians*, 898 F.2d at 1415. To comply, the consulting and action agencies must reinitiate consultation when "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered." 50 C.F.R. §§ 402.16(b), (d).

In general, agency decisions under the ESA are governed by the Administrative Procedure Act ("APA"). *Good Samaritan Hosp., Corvallis v. Mathews*, 609 F.2d 949, 951 (9th Cir. 1979) (citing 5 U.S.C. § 706(2)). Under the APA, post-decisional documents are

not included in the AR. *Friends of the Clearwater*, 523 F. Supp. 3d at 1222 ("post-decision information cannot be used to challenge the merits of the agency's decision"). However, the APA only applies where there is "no other adequate remedy in a court." 5 U.S.C. § 704. Because an ESA citizen-suit provides a private remedy by statute, the APA is not applicable when determining the scope of the court's review. *Washington Toxics Coal. v. Envtl. Prot. Agency*, 413 F.3d 1024, 1034 (9th Cir. 2005); *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 497 (9th Cir. 2011) ("because the ESA provides a citizen suit remedy—the APA does not apply in such actions"). In a citizen-suit, the court "may consider evidence outside the administrative record for the limited purposes of reviewing Plaintiffs' ESA claim." *W. Watersheds Project*, 632 F.3d at 497; *Wildearth Guardians v. U.S. Fed. Emergency Mgmt. Agency*, No. CV 10-863-PHX-MHM, 2011 WL 905656, at *3 (D. Ariz. Mar. 15, 2011). Under these circumstances, the court has discretion to permit supplementation for the purpose of the ESA citizen suit, *id.* (citing *San Francisco Baykeeper v. Whitman*, 297 F.3d 877, 886 (9th Cir. 2002)), and may consider post-decisional information if it encompasses "evidence that is relevant to the question of whether relief should be granted," *Wildearth Guardians v. U.S. Fed. Emergency Mgmt. Agency*, No. CV 10-863-PHX-MHM, 2011 WL 905656, at *3 (D. Ariz. March 15, 2011). However, "because the [post-decisional] evidence is not part of the record, it must be otherwise admissible." *Friends of the Clearwater*, 523 F. Supp. 3d at 1222; *Orr v. Bank of Am., NT & SA*, 285 F.3d 764, 773 (9th Cir. 2002).

Plaintiffs conveyed the proposed documents several years after the release of the 2014 BiOp. The documents, therefore, should not supplement the AR for the purpose of considering the merits of Plaintiffs' challenge to the 2014 BiOp. However, Plaintiffs present the proposed documents to demonstrate that the Agencies violated the ESA by erroneously refusing to reinitiate consultation after receiving the information contained in the documents and the notice of intent to sue. It is impossible to determine whether the reinitiation of consultation was necessary without considering the documents. Therefore, the Court will allow the AR to be supplemented with the three documents.

In summary, the Court supplements the AR with the ER, the Deed of Perpetual

Conservation Easement for the PPF, and the North Dakota State University article entitled *Selecting a Sprinkler Irrigation System*. It also supplements the AR with the CCRN Presentation, Climate Science Report, and Prucha Hydrology Report for the sole purpose of considering Plaintiffs' allegation that Defendants violated their substantive duty when they refused to reinitiate Section 7 consultation. The Court will not, however, include the AzRA in the AR.

IV. MOTION FOR SUMMARY JUDGMENT

a. Standard of Review

"Summary judgment is a particularly appropriate tool for resolving claims challenging agency action." *Defenders of Wildlife v. Salazar*, 729 F. Supp. 2d 1207, 1215 (D. Mont. 2010). When the facts are undisputed, upon summary judgment, a court must "determine whether or not as a matter of law the evidence in the administrative record permitted the agency to make the decision it did." *Occidental Eng'g Co. v. INS*, 753 F.2d 766, 769 (9th Cir. 1985). The Court finds the AR establishes the facts necessary for judicial review, and it may render an opinion as a matter of law.

b. Administrative Procedure Act ("APA")

Agency decisions under the ESA are governed by the APA, and for summary judgment, "[t]he review is not a determination of whether there is any genuine issue as to any material fact . . . , but rather whether the agency action was arbitrary, capricious, an abuse of discretion, not in accordance with law, or unsupported by substantial evidence on the record taken as a whole." *Good Samaritan Hosp., Corvallis*, 609 F.2d at 951 (citing 5 U.S.C. § 706(2)).

"Review under the arbitrary and capricious standard is deferential . . . ." *Nat'l Ass'n of Home Builders*, 551 U.S. at 658. The reviewing court's "role is simply to ensure that the [agency] made no 'clear error of judgment' that would render its action 'arbitrary and capricious.'" *Lands Council v. McNair*, 537 F.3d 981, 993 (9th Cir. 2008) (en banc), *overruled on other grounds by Winter v. Nat. Res. Def. Council*, 555 U.S. 7 (2008). A decision is not arbitrary and capricious when "a rational connection [exists] between facts found and conclusions made by the defendant agencies." *Conservation Cong. v. Finley*,

774 F.3d 611, 617 (9th Cir. 2014). Accordingly, a reviewing court should "not vacate an agency's decision unless" the agency (1) "has relied on factors which Congress had not intended it to consider," (2) ignored "an important aspect of the problem," (3) explained its decision with no evidence, or (4) provided an explanation that "is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Nat'l Ass'n of Home Builders*, 551 U.S. at 658 (quoting *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)).

If the court finds the record is insufficient to support the agency's action, "the proper course, except in rare circumstances, is to remand to the agency for additional investigation or explanation." *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 744 (1985).

c. GeoSystems Report

FWS's no jeopardy determination relied upon the USGS Groundwater Model's simulation of the effects on baseflows through 2030 and on a Groundwater Demand Accounting. (ARMY000555–587; ARMY000653–660.) FWS considered the Groundwater Model the best available evidence for evaluating "future baseflow conditions." (FWS004682.) Plaintiffs disagree, contending that two other reports provided the best available evidence of the effect of groundwater pumping on the water levels along the San Pedro River: the Geosystems Report and the Lacher Report. (Doc. 18 at 35.) Plaintiffs believe the Agencies' failure to consider these models violated the ESA. (*Id.* at 34.)

The GeoSystems Report was prepared for the Fort by an independent hydrology firm, GeoSystems Analysis, Inc., based on the USGS Groundwater Model. (FWS022558.) The GeoSystems Report considered baseflows in the San Pedro River Basin, anticipating that the Fort's groundwater pumping would continue at the same rate through 2105. (FWS022555–556; FWS022558.) It assessed baseflow declines from the Fort's action at three intervals: 2003, 2050, and 2105. (FWS022575.) The GeoSystems Report anticipated that peak declines should occur in 2050, wherein two areas of the San Pedro and Babocomari rivers will be pumped dry. (FWS022580.)

Plaintiffs contend FWS turned a blind eye to the effects occurring after 2030,

truncating its analysis so that FWS could claim the Fort's groundwater pumping had a positive impact. (Doc. 18 at 35.) Plaintiffs believe the Agencies could not ignore the GeoSystems Report's conclusion that the results of the Fort's action are delayed, causing "peak impacts to stream flows 25 years later—that is, in 2050." (Doc. 28 at 22.) And so, Plaintiffs claim that by limiting the assessment to 2030, FWS ignored the lag time between groundwater pumping and the resultant baseflow declines. (Doc. 18 at 35–36.) Moreover, Plaintiffs claim the Agencies cannot unreasonably assume there would be no pumping after 2030. (Doc. 28 at 22.) Furthermore, Plaintiffs claim that by limiting the analysis to 2030, the Agencies have violated their state statutory duty to ensure water can be utilized "for at least one hundred years." (*Id.* at 22, n.8 (citing A.R.S. § 45-576(L)(1)).) Therefore, Plaintiffs assert FWS overlooked an important aspect of the problem, and the Agencies conclusions did not rationally relate to the best available data, violating the ESA.

Defendants counter the Fort did, in fact, consider the GeoSystems Report in the Groundwater Modeling analyses for the PBA and adopted the relevant and reliable portions. (Doc. 25 at 18–19.) However, FWS claims it adopted the Army's Groundwater Modeling as the best scientific evidence available because there were flaws in the GeoSystems Report. (*Id.* at 17–18.) The Fort disagreed with the population growth estimates—the GeoSystems Report assumed that the Fort's population growth would steadily increase, but this projection was "demonstrably inaccurate." (*Id.* at 19, 22.) Similarly, the GeoSystems Report anticipated ever-increasing pumping, but the Agencies note that even the GeoSystems Report admits it likely overstated pumping and the effect on baseflow. (*Id.* at 19–21.) Instead, the Fort utilized a constant value. (*Id.* at 19, 22.) In addition, the Agencies state that they did consider the lag time between pumping and its effect on groundwater levels by extending their analysis beyond the ten-year action period, adding six years. (*Id.* at 25.) Moreover, Defendants note that the agency action under consideration in the 2014 BiOp was the Fort's groundwater pumping until 2024, and estimating baseflow beyond 2030 extends beyond an action that is reasonably certain to occur because of the "uncertainty in predicting government programs, budgets, and missions . . . ." (*Id.* at 21–22.) Finally, under Section 321 of the Defense Authorization Act

of 2004, the Fort cannot be liable for the water consumption not attributable to the Fort, and the GeoSystems Report's overestimation of the amount of groundwater pumping makes the Fort accountable for non-Fort water consumption. (*Id.* at 23.) Plaintiffs' argument is a mere disagreement with the Agencies' conclusions, the Agencies claim, but does not constitute an ESA violation. (*Id.* at 23.)

To come to a no jeopardy conclusion, agencies must use "the best scientific and commercial data available." 16 U.S.C. § 1536(a)(2). An agency cannot "disregard[] available scientific evidence that is in some way better than the evidence [it] relies on." *Native Ecosystems Council v. Marten*, 883 F.3d 783, 791 (9th Cir. 2018). However, the court must "conduct a particularly deferential review of an agency's predictive judgments about areas that are within the agency's field of discretion and expertise . . . as long as they are reasonable." *Lands Council*, 537 F.3d at 993; *Forest Guardians v. U.S. Forest Serv.* ("*FG v.* USGS"), 329 F.3d 1089, 1099 (9th Cir. 2003). A court may not "substitute [its] judgment for the agency's in determining which scientific data to credit, so long as the [agency's] conclusion is supported by adequate and reliable data." *Conservation Cong.*, 774 F.3d at 620. Courts can "reject an agency's choice of a scientific model only when the model bears no rational relationship to the characteristics of the data to which it is applied." *San Luis & Delta-Mendota Water Auth. v. Jewell*, 747 F.3d 581, 621 (9th Cir. 2014).

Here, FWS chose to rely upon the USGS Groundwater Model over the GeoSystems Report as the best available evidence. The Agencies acknowledged—but ultimately disregarded—parts of the GeoSystems Report. FWS provided cogent reasons for doing so: (1) the Fort was unable to accurately predict its actions beyond 2024, and so the GeoSystems Report's assumption of the Fort's groundwater use beyond 2030 was too speculative; (2) the GeoSystems Report made a faulty assumption that the Fort's population would steadily increase; (3) the population estimate resulted in groundwater use not attributable to the Fort; and (4) the calculations in 2050 and 2105 extended the effects of the Fort's actions beyond the time that the actions were reasonably certain to occur.

First, there was no requirement under the ESA that FWS assess the actions of the Fort beyond ten years, and previous BiOps have similarly limited timeframes. *See Ctr. for*

Biological Diversity, 804 F. Supp. 2d at 994 ("Under the ESA, FWS must *evaluate the impacts of the entire agency action*, which include the Fort's operations *from 2006 to 2016.*") (emphasis added); *see also Rumsfeld*, 198 F. Supp. 2d at 1147 (biological assessment evaluated the Fort's actions for a ten-year period); *Oceana II*, 125 F. Supp. 3d at 247 (limiting BiOp term to ten years); *see* Interagency Cooperation–Endangered Species Act of 1973, 51 Fed. Reg. 19,926, 19,932 (June 3, 1986) (the effects of an agency's action "will involve consideration of the present environment . . . as well as the environment that will exist *when the action is completed* . . . .").

Second, "[a] consequence [of an agency's action] is caused by the proposed action if it would not occur but for the proposed action and *it is reasonably certain to occur*." 50 C.F.R. § 402.02(d) (emphasis added). While groundwater pumping is likely to continue, it is unclear from the data to what extent. In addition, FWS observed that the GeoSystems Report did not have reliable data about either population growth or water usage. FWS's conclusion that the GeoSystems's estimate was inaccurate was rational, as was FWS's reliance on the USGS Groundwater Model. Although some amount of groundwater pumping is likely to occur beyond 2030, Plaintiffs have not shown that the GeoSystems Report provides superior scientific data such that FWS was required to utilize it as the best available evidence.

Next, Plaintiffs claim the ten-year limit violates state statute, but do not explain how the statute creates a duty to consider effects for one-hundred years in an ESA claim. The agency must consider impacts on the environment during the action, 51 Fed. Reg. 19,932, and FWS has considered six years beyond when the Fort's action is reasonably certain to occur.

In addition, Section 321 of the Defense Authorization Act of 2004 limits the Fort's Section 7 responsibility for water consumption, stating that water use "that is not the direct or indirect effect of the agency action . . . shall not be considered in determining whether such agency action is likely to jeopardize the continued existence of any endangered or threatened species . . . ." National Defense Authorization Act for Fiscal Year 2004, Pub. L. No. § 108-136, 117 Stat. 1392, 1437 (2004). Because the GeoSystems Report

overestimated the population, it made the Fort accountable for non-Fort water use. FWS reasonably decided that this projection was not reliable and was not the best available evidence.

In sum, the Agencies did not disregard the best available evidence. Rather, the Agencies considered the studies and determined that the USGS Groundwater Model constituted the best available evidence. This is a reasonable analysis, and the Court gives deference to this decision.

d. Lacher 2011 Report

The second report Plaintiffs believe constitutes the best available evidence is a study performed by Dr. Laurel Lacher ("Lacher Study"). The Lacher Study was also based in part on the USGS Groundwater Model. Plaintiffs claim Defendants did not consider the Lacher Study's negative calculations of surface flows in 2050, and conveniently only disclosed the earlier 2003 and 2030 measurements, which show "positive impacts" on the San Pedro River Basin. (Doc. 18 at 35.) As with the GeoSystems Report, Plaintiffs claim FWS's disregard of Lacher's assessment of the effects of groundwater pumping past 2030 ignores the fact that there is a "time lag between groundwater pumping and the subsequent effects on stream flows," which only becomes apparent when considering a longer timeline than utilized in the USGS Groundwater Model. (*Id.* at 35.)

Defendants note that the Lacher Study was flawed from the beginning; it assumed an increase in population that "proved to be eight percent higher than the actual population in 2010." (Doc. 25 at 22.) The Lacher Study is therefore provably inaccurate because data provided during consultation showed "a decline in Fort-attributable water demand." (*Id.* at 22–23.) Defendants state the Lacher Study is also flawed because it assumes the Fort's groundwater pumping will continue to increase through 2105. (*Id.* at 21.)

Defendants reiterate that the 2014 BiOp only assessed the Fort's actions up until 2024 because of the inability to anticipate federal programs, budgeting, and mission requirements. (*Id.* at 13.) Defendants again claim the ten-year time frame is reasonable and consistently used to evaluate the effects of an agency's actions. (*Id.* at 22.) In addition, the Agencies state that they did consider lag time by extending their analysis to 2030. (*Id.* at

25.) Nevertheless, despite the Lacher Study's deficiencies, Defendants claim they evaluated it and explained how they used the information. (*Id.* at 23.)

A consequence [of an agency's action] is caused by the proposed action if it would not occur but for the proposed action and *it is reasonably certain to occur*. 50 C.F.R. § 402.02(d) (emphasis added). In addition, Section 321 limits the Fort's Section 7 responsibility for water consumption to preclude water use "that is not the direct or indirect effect of the agency action." Pub. L. No. 108-136, 117 Stat 1392, 1437 (2004).

Like the GeoSystems Report, the Agencies considered the Lacher Study, noted its weaknesses, and decided not to adopt the study's conclusions beyond 2030 because it overestimated the Fort's population, resulting in an overestimation of the Fort's groundwater use. Moreover, Defendants reasonably found that to evaluate an agency's action beyond ten years made the data unreliable and the Fort could not foresee that the current action would be reasonably certain to occur beyond 2024. The district court has previously found ten years is an acceptable time for determining the effects of groundwater pumping. *See Ctr. for Biological Diversity*, 804 F. Supp. 2d at 994; *Rumsfeld*, 198 F. Supp. 2d at 1147; *Oceana II*, 125 F. Supp. 3d at 247. The Court finds that the 2014 BiOp acknowledged the Lacher Study, noted its weaknesses, and assessed the applicable affects during the applicable time. The Court cannot find that this analysis was arbitrary and capricious. The 2014 BiOp's conclusions are supported by adequate and reliable data during the ten-year evaluation period and Defendants have rationally explained why the Lacher Study's conclusions were unreliable and did not constitute the best available evidence.

e. Babocomari River Assessment to 2053

Plaintiffs next say that Defendants inexplicably abandoned their rationale for limiting the effects to 2030 when they used a 50-year timeline to evaluate the effects on the Babocomari River. (Doc. 18 at 37.) This inconsistency fails to utilize the best available evidence and is arbitrary and capricious, Plaintiffs argue. (*Id.* at 36–37.) FWS responds that the 50-year estimate was not drawn from the GeoSystems Report or the Lacher Study, but rather from Leake et al. (2008). (Doc. 25 at 25–26.) Defendants contend that Leake

included effects of the Fort's groundwater pumping based on "simulated groundwater conditions from 1902 through 2003," and not a prospective analysis of future use. (*Id.* at 26.) FWS reasoned that the timelines in the data available were inconsistent, and the Leake data was used to estimate the effects of conservation easements on stream discharge in the Babocomari River because the Groundwater Modeling did not do so. (*Id.*)

Where an agency's conclusions are supported by "adequate and reliable data," and the agency "considers all relevant data," a court must defer to the agency's judgment, "even when it is imperfect, weak, and not necessarily dispositive." *Conservation Cong.*, 774 F.3d at 620. Moreover, "the mere fact that the [agency] might have adopted 'internally inconsistent' positions throughout the decision-making process d[oes] not render the [the agency's] final decision arbitrary and capricious." *Nw. Coal. for Alternatives to Pesticides v. U.S. E.P.A.*, 544 F.3d 1043, 1051 (9th Cir. 2008). A district court may "uphold a decision of less than ideal clarity if the agency's path may reasonably be discerned." *Nat'l Ass'n of Home Builders*, 551 U.S. at 658.

The Court concludes that FWS's explanation for including the Leake study to measure the effects of groundwater pumping on the Babocomari River until 2050 was reasonably discernable. Leake provided adequate and reliable data about the future effects of groundwater pumping that Plaintiffs' two studies could not. Leake's assessment limited the effects of the Fort's groundwater pumping to the Fort's actions in the applicable ten-year action period. Unlike the GeoSystems Report, Leake did not speculatively anticipate future use beyond the action term. In addition, as noted previously, FWS considered and explained why it did not rely upon the GeoSystems Report to determine anticipated effects beyond 2050. The Court cannot find FWS's reliance is arbitrary or capricious.

f. Retired Agricultural Irrigation from PPF and Clinton/Drijvers Purchase

Plaintiffs next claim that to reach a no jeopardy conclusion, the Agencies erroneously concluded that the purchase of the PPF and Clinton/Drijvers easements retired sources of agricultural irrigation. (Doc. 18 at 38.) However, Plaintiffs believe that because (1) the PPF easement had not been used for agricultural purposes since 2005, (2) the irrigation pivots were not in working order, and (3) the property was zoned and marketed

for sale as residential,[5] that the PPF purchase did not, in fact, retire a source of agricultural water usage. (*Id.* at 38–42.) Plaintiffs believe FWS should not be permitted to calculate the PPF easement as a water credit because it did "not retire a reasonably certain water source," and so the BiOps's alleged water savings violate the ESA. (*Id.* at 42.)

Defendants argue that Plaintiffs are setting the bar too high because they do not need to demonstrably prove the PPF easement would have been used for agricultural irrigation, only that it was "reasonably certain to occur." (Doc. 25 at 29.) Without the PPF easement, Defendants state that under Arizona water law there is no "restriction on a private owner pumping as much groundwater" as desired, including "the amount necessary to grow alfalfa or another crop." (*Id.* at 30.) Defendants claim they retired a source of agricultural irrigation simply because the purchase halted the possibility of future use for that purpose. (*Id.* at 31.) The Agencies claim the standard does not require proof that the pivots were working or that alfalfa irrigation would commence absent the purchase, only that "any agricultural irrigation would resume." (*Id.* at 31–32.) When the PPF easement was purchased, Defendants claim Plaintiffs' evidence shows it was being used for agricultural grazing. (*Id.* at 32 (citing Doc. 19-1 at 3–4).) Moreover, the status of the center pivots is non-dispositive because alfalfa and other crops do not require center pivot irrigation. (*Id.* at 32.)

> The Ninth Circuit has held that mitigation measures may be included as part of a proposed action and relied upon only where they involve specific and binding plans and a clear, definite commitment of resources for future improvements to implement those measures. . . . Furthermore, . . . mitigation measures supporting a BiOp's no jeopardy or no adverse modification conclusion must be reasonably specific, *certain to occur*, and capable of implementation; they must be subject to deadlines or otherwise-enforceable obligations; and most important, they must address the threats to the species in a way that satisfies the jeopardy and adverse modification standards.

Ctr. for Biological Diversity, 804 F. Supp. 2d at 1001. An agency action must be supported by clear and substantial information indicating the result is reasonably certain to occur.

[5] Per the Court's decision not to permit supplementation of the AR with the AzRa article, the Court does not address the issue of the marketing of the PPF easement.

Endangered and Threatened Wildlife and Plants; Regulations for Interagency Cooperation, 84 Fed. Reg. 44,976–77 (Aug. 27, 2019). To provide "clear and substantial" evidence there must be "a firm basis to support a conclusion that a consequence of an action is reasonably certain to occur." *Id.* at 44,977. Speculation is insufficient; however, "clear and substantial evidence" does not "mean the nature of the information must support that a consequence *must be guaranteed to occur*, but rather, that it must have *a degree of certitude*." *Id.* (emphasis added).

Because the Agencies looked at historic use of the land for agricultural irrigation, the land's ability to again be used in this manner, the fact the PPF easement was leased and occupied for agricultural grazing use, and sale of the PPF easement prevented the possibility of agricultural water use indefinitely, Defendants have shown that future agricultural irrigation was reasonably likely to occur and the determination that the PPF easement purchase retired a potential agricultural irrigation use was not arbitrary and capricious.

g. Fort Action and Climate Change

Plaintiffs next claim that FWS did not properly consider the effects on groundwater recharge[6] from climate change and groundwater pumping. (Doc. 18 at 46–48.) Plaintiffs believe FWS should have relied upon the findings in Serrat-Capdevila et al. 2007, a study which concluded that climate change will lead to an 8% decline in recharge by 2030 and near 14% by 2050. (Doc. 28 at 28.) Plaintiffs indicate the Agencies conceded that the existing models were flawed and that a revised modeling was necessary but arbitrarily relied on the USGS Groundwater Model, which erroneously presumed that water recharge will remain the same over time. (Doc. 19 at ¶ 95–96.) Then, instead of applying Serrat-Capdevila's evidence of declines, Plaintiffs assert the Fort simply provided a general "buffer of 72 AFY to provide for the potential for variations in groundwater use due to climate." (Doc. 18 at 49.) Plaintiffs claim this buffer is woefully inadequate, and

[6] According to Plaintiffs, recharge is essential to the survival of the listed species because it "create[s] pressure on the aquifer, which drives groundwater laterally and upward into both the San Pedro and Babocomari rivers as year-around baseflows that support riparian habitat and species." (Doc. 18 at 20 (citing FWS004679, FWS004681).)

Defendants may not bypass their climate analysis merely by claiming the existing modeling is insufficient and then providing generalized estimates. (*Id.* at 49–50.) Plaintiffs state because there is no "rational basis" for this estimate, the 72 AFY buffer violates the ESA. (*Id.* at 49–50.)

Defendants counter that they are not required to evaluate the cumulative effects of climate change and Fort action on the listed species. (Doc. 25 at 38.) The Agencies assert that the Fort's PBA acknowledged that climate change could significantly affect surface flows in the San Pedro River. (*Id.* at 37.) FWS reviewed multiple scientific studies that predicted less rain, decreased streamflow, and reduction in habitat. (*Id.*) FWS states it also reviewed the Serrat-Capdevila study, but found it was outdated, did not reflect the Fort's anticipated groundwater consumption, and was not intended to measure impacts so far into the future. (*Id.* at 37, 40.) FWS claims it was not required to adopt any quantitative estimate of decreased precipitation, and FWS provided sufficient explanation as to why they did not adopt the conclusions found in Serrat-Capdevila. (*Id.* at 36.)

FWS also states the 2014 BiOp recognized that the effects of climate change "may be hard to predict and likely to occur non-linearly." (*Id.* at 37.) For instance, FWS noted that it would be difficult to anticipate future water trends given the inconsistency between predicted precipitation and actual precipitation. (*Id.* at 41.) And so, the Agencies adopted Pool and Dickinson 2007 as their preferred groundwater flow model but recognized it too was imperfect—it used "a constant value for the natural recharge component" and assumed "a constant annual precipitation rate." (*Id.* at 40.) Thus, Defendants allege the constant value of recharge and precipitation was a reasonable means to evaluate a complicated matter. (*Id.*) Finally, FWS claims it was acceptable to conclude that since the Groundwater Modeling found that the Fort's actions would result in increased groundwater, the increased flow would "not worsen the still deteriorating baseline conditions" caused by climate change. (*Id.* at 39.)

"It is . . . not the Court's place to tell the agency how to consider climate change in its analysis, it simply must consider it." *Wild Fish Conservancy v. Irving*, 221 F. Supp. 3d 1224, 1233 (E.D. Wash. 2016). Still, the agency's climate change "analysis must consider

[]the best available science, which it discusses elsewhere in the BiOp . . . ." *Wild Fish Conservancy*, 221 F. Supp. 3d at 1234. In general, the court gives deference to an agency's predictions about the possible effects of climate change. *See FG v. USGS*, 329 F.3d at 1099. However, an agency cannot simply summarize the effects of climate change and then analyze the proposed action under the assumption that climate change will have no effect. *Wild Fish Conservancy*, 221 F. Supp. 3d at 1233–34. Moreover, "it is not enough for [an agency] to simply invoke 'scientific uncertainty' to justify its action. . . . Rather, [the agency] must explain why uncertainty justifies its conclusion, otherwise, [the court] might as well be deferring to a coin flip." *Zinke*, 900 F.3d at 1072. But the climate analysis does not require the agency "to conduct new tests or make decisions on data that does not yet exist." *Id.* at 1233 (quoting *San Luis & Delta–Mendota Water Auth. v. Locke*, 776 F.3d 971, 995 (9th Cir. 2014)). If a plaintiff cannot point to scientific data omitted from consideration, the claim fails. *Kern Cnty. Farm Bureau v. Allen*, 450 F.3d 1072, 1081 (9th Cir. 2006).

Here, FWS evaluated all the evidence, including Serrat-Capdevila, and noted how climate change would affect the listed species and critical habitat. FWS acknowledged that climate change would likely increase temperatures, decrease precipitation, reduce streamflow, and negatively affect the listed species. (FWS004670–671, FWS004870; FWS004897.) FWS concluded that the impact of climate change was difficult to quantify because of the various complicated factors at play. (FWS004669.) The BiOp noted that the data was mixed and the results conflicting. For instance, FWS indicated that while precipitation was likely to decrease, "there is presently no model consensus on how the summer monsoon regime in the Southwestern U.S. will change" and noted that monsoons account for a large portion of annual rainfall. (FWS004670.) FWS also acknowledged that streamflow and base flow were likely to decrease even if rainfall increased. (FWS004670.) But, FWS added, five global climate models "predicted slightly wetter conditions." (FWS004671.) These observations demonstrate the complexities FWS faced when determining how to address the effects of climate change.

The Court finds FWS did not merely abdicate responsibility by claiming "scientific

uncertainty" but rather FWS reasonably explained that because of the complex factors that could affect the climate change analysis, substituting an uncertain amount of AFY with a constant value was reasonable. The Agencies were required to consider the effects of climate change but not to quantify the combined decreased baseflow from the Fort's action and decreased precipitation due to climate change. FWS also reasonably relied upon Pool and Dickinson, and explained why it did not believe Serrat-Capdevila constituted the best evidence for the climate analysis. Furthermore, as stated in Sections IV(c) and (d), the Agencies were not required to assess action beyond 2030. The Agencies have formed a rational connection between the data available and the choices made.

h. Groundwater Accounting Method

Plaintiffs also argue that FWS overestimated the amount of water saved from the easement purchase. (Doc. 19 at 28–29.) Plaintiffs believe FWS calculated the water savings as the "total amount of groundwater . . . used to irrigate alfalfa." (*Id.* at 28.) (ARMY000527.) But Plaintiffs contend alfalfa only consumes 3.4 AFY per acre, and any additional water used for irrigation is re-absorbed and is returned to the aquifer, replenishing groundwater. (*Id.* at 28.) Plaintiffs claim FWS should have calculated the amount of water used minus the amount of water that would be returned to the aquifer instead of simply calculating the overall water use. (*Id.* at 28.) Because FWS ignored the appropriate calculations to come to their water savings, Plaintiffs claim the no jeopardy findings were baseless. (Doc. 18 at 29.)

Defendants retort that the calculation is consistent with that used in 2002 for the Clinton and Drijvers easements in the Arizona Department of Water Resources's ("ADWR") 1991 Hydrographic Survey Report. (Doc. 25 at 34–35.) To re-calculate now would require reassessing the calculations of past conservation credits that were never challenged. (*Id.*) Plaintiffs rely upon the ADWR 2005 Report (ARMY002495–002713), but the Agencies claim the ADWR 2005 is not a scientific analysis of water duty return flows, and it merely assumes that water in excess of that consumed by the plants is returned to the aquifer. (Doc. 25 at 34.) Other sources have calculated different numbers of return as well, the Agencies note. (*Id.*) Even using the lower 3.4 AFY per acre, Defendants claim

if they recalculated the water duty now the result would be different than Plaintiffs anticipate because Defendants would "include the significantly reduced Fort-attributable groundwater demand . . . and additional conservation easements acquired by the Army since the BiOp was issued." (*Id.* at 35.)

"[I]t is not enough for [an agency] to simply invoke 'scientific uncertainty' to justify its action. . . . Rather, [the agency] must explain why uncertainty justifies its conclusion . . . ." *Ctr. for Biological Diversity v. Zinke*, 900 F.3d 1053, 1072 (9th Cir. 2018).

In the PBA, when determining how much water savings occurred with the purchase of the PPF easement, the Fort observed that the numeric calculation for water duty was based on ADWR's 1991 Hydrographic Survey Report. The Fort explained that "water duty is defined as the total amount of water that must be applied to a portion of irrigated acreage to successfully produce a crop based on the crop type and the effectiveness of water management and application to meet the water needs of the crop." (ARMY000527.) The Fort calculated, "the formula to estimate the Fort's credit for retiring irrigation on agricultural lands is: Retired Agricultural Pumping = Acres of irrigated land retired x 5.4 acre-feet per acre." (*Id.*) For the PPF easement, the Fort multiplied the PPF easement's 480 acres x 5.4 acre-feet per acre water duty then subtracted 4 acre-feet for rural water use, "result[ing] in an overall savings of 2,588 acre-feet per year of groundwater pumping." (ARMY00519.)

The 1991 ADWR Report states that the consumptive use of water by plants is the "amount of water that is needed by the crop for growing and cooling" and that "[a]ny computed water duty should reflect average irrigation water use over a long period of time." (ARMY001778.) The 2005 ADWR Report similarly describes consumptive use as "the volume of water used by plants for growth and transpiration." (ARMY002572.) While the amount of water utilized for consumptive use appears to be debatable (*see* ARMY002674), the fact that any amount over the consumptive level replenishes the aquifer is not.

The Fort's calculation does not contemplate that any groundwater would be returned to the aquifer: this failure makes the PBA—and therefore the 2014 BiOp—arbitrary and capricious. Defendants admit that water used in excess of plant usage is returned to the

aquifer but claim the parties simply disagree how much. During oral argument, the Agencies admitted the Fort previously took credit for such returns under different circumstances, but claimed the credit was acceptable in those instances because the calculations were definite. (Doc. 39 at 41.) The Agencies also purport to have a rational basis for their calculation of "return flows," stating "the water duty actually represents the best estimate of the amount of water that would be pumped were these irrigation wells [on the PPF easement] turned on." (*Id.* at 40.) This statement ignores one half of the equation. It assumes that the best estimate of water saved is the amount of water pumped, but it ignores that a portion of that pumped water would have returned to the aquifer had it been used for irrigation. The Agencies give no reason to believe that *no* return is a reasonable calculation. Thus, the return should not be credited to the Fort. To do so would be like asking for full payment for a roof repair, knowing that up to 40% of the roof still leaks. It amounts to an undeserved benefit.

The Agencies admit this is a quandary that will be addressed during formal consultation for the next BiOp. (*Id.* at 41.) Simply because the Fort's equation has not previously been challenged does not negate the Agencies' substantive duty to avoid actions that jeopardize listed species. Including the return to the aquifer would decrease the groundwater saved, altering the Fort's groundwater credit for retiring a source of agricultural irrigation. Ultimately, this may change the jeopardy analysis.

The Court therefore finds the 2014 BiOps' calculation for easement credit is arbitrary and capricious because it "ignored an important aspect of the problem." *Nat'l Ass'n of Home Builders*, 551 U.S. at 658.

i. Mandatory Adoption or Reinitiation of Consultation

Next, Plaintiffs assert once the gartersnake and cuckoo were listed, the Agencies were required to either adopt the no jeopardy Conference Opinions or reinitiate consultation to address the flaws in the Opinions. (Doc. 18 at 57.) FWS did neither, which Plaintiffs claim violated Section 7 of the ESA.[7] (*Id.* at 58.) Plaintiffs claim two sections of

[7] The Court does not address Plaintiffs' claim that these actions violated ESA section 9 as there is no section 9 allegation in the Complaint.

the Code of Federal Regulations ("C.F.R.") require FWS act on the Conference Opinion when a species is listed—50 C.F.R. § 402.10(a)(4)[8] and § 402.16(b).

Defendants claim the Conference Opinions are valid—even after the species were listed—because FWS *may choose* to adopt the Conference Opinions as the BiOp or to reinitiate consultation, but these choices are not mandated. (Doc. 25 at 46.) Also, because there was never a consultation, only a conference, the Agencies assert the reinitiation of consultation regulations do not apply. (*Id.* at 47.) Moreover, Defendants argue Plaintiffs have no cognizable claim to enforce reinitiation of consultation under the ESA citizen-suit provision or as a violation of APA Section 706. (*Id.* at 45, n.17.)

Under the C.F.R. addressing conferencing for proposed species, certain measures are mandated when a species is proposed for listing. In this instance, the action agency "shall confer" with FWS regarding actions that are "likely to jeopardize the continued existence" of any "species proposed to be listed" or that may "result in the destruction or adverse modification of critical habitat proposed to be designated for such species." 50 C.F.R. §402.10(a); 16 U.S.C. §1536(a)(4). This conference culminates in a conference opinion. 50 C.F.R. §402.10(d).

However, FWS is not required to adopt the conference opinion as a final BiOp once a proposed species is listed, nor does the C.F.R. require the initiation of formal consultation upon listing. *See* 50 C.F.R. §402.10(d). The C.F.R.'s permissive language prevents the Court from interpreting these options as mandatory. The regulations note that upon listing, a conference opinion "*may* be adopted as the biological opinion . . . ." 50 C.F.R. §402.10(d) (emphasis added). In addition, 50 C.F.R. § 402.10(c) does not require initial consultation upon listing, much less reinitiation of consultation. The C.F.R. indicates that "[i]f the proposed species is subsequently listed or the proposed critical habitat is designated prior to the completion of the action, the Federal agency must review the action to determine *whether formal consultation is required*." 50 C.F.R. § 402.10(c) (emphasis added). There is no indication in the regulations regarding conferencing demonstrating that, after a

[8] Plaintiffs cite to 50 C.F.R. § 402.16(d) (2019). This subsection has since been amended and identical language is now found in 50 C.F.R. § 402.16(a)(4) (2020).

species is listed, FWS must either adopt the conference opinion as the BiOp or engage in formal consultation.

Nor can the Court find that the situation here is governed by the reinitiation of consultation regulation—50 C.F.R. § 402.16. Under this section, reinitiation of consultation is required when "a new species is listed or critical habitat designated that may be affected by the identified action." 50 C.F.R. § 402.16(a)(4). On the surface, this appears to require reinitiation of consultation for all newly listed species. However, in this instance, FWS issued a Conference Opinion without formal consultation, and so the conference was regulated under 50 C.F.R. § 402.10, whose language permits, but does not mandate, formal consultation. 50 C.F.R. § 402.10 ("*If* requested by the Federal agency *and* deemed appropriate by the Service, the conference *may* be conducted in accordance with the procedures for formal consultation in § 402.14.") (emphasis added). With no requirement for formal consultation, it would be illogical to conclude that *re*initiation of consultation is mandated. *See e.g.*, Reinitation of Consultation, 84 Fed. Reg. at 45,011 (Sept. 26, 2019) (agreeing reinitiation unnecessary for species after listing when prior to listing species included in consultation for programmatic land management plan). This interpretation does not render 50 C.F.R. § 402.16(a)(4) superfluous as Plaintiffs imagine, however, because a species which had no existing conference opinion would still be required to reinitiate consultation.

The Agencies conferred about the effects of the Fort's action on the gartersnake and cuckoo but chose not to adopt the Conference Opinions as the BiOp. The regulation's language allows for this. 50 C.F.R. §402.10(d). Once listed, FWS was not required to reinitiate consultation as no initial consultation had occurred.

j. Flawed Conference Opinion

Plaintiffs also assert FWS cannot adopt the Conference Opinions because they are fundamentally flawed and so reliance upon them is arbitrary and capricious. (Doc. 18 at 57.)

The Court agrees. For the reasons stated in Section V(h), the Agencies' groundwater mitigation calculation was arbitrary and capricious. Thus, the Conference Opinion that

bases its no jeopardy opinion on the flawed mitigation credit is also arbitrary and capricious because it overlooked an important issue relevant to the no jeopardy analysis. *See Nat'l Ass'n of Home Builders*, 551 U.S. at 658.

k. Claims Under the ESA's Citizen-Suit Provision

Plaintiffs claim that subsequent to the 2014 BiOp, additional information was released which shows the Fort's groundwater pumping results in adverse modification of the listed species and their critical habitat. (Doc. 18 at 29.) First, Plaintiff's claim the Fort released a report showing the actual on-base stormwater capture was less than anticipated in the BiOp. (*Id.*) Second, Plaintiffs believe new climate change studies will show climate change has a greater impact than previously anticipated, warranting a new consultation regarding climate change effects on the listed species. (*Id.* at 30.) Third, hydrologist Dr. Robert Prucha issued a report that "identifies even greater declines along the San Pedro River than those identified in the GeoSystems Report . . . ." (*Id.*) Plaintiffs state they told the Agencies about the new information on December 3, 2019, and requested that the Agencies reinitiate consultation. (*Id.*) Plaintiffs claim the Agencies have not done so, violating their Section 7 substantive duty. (*Id.*)

Defendants respond that ordering reinitiation is unnecessary because they are currently planning reinitiation of consultation for 2021.[9] (Doc. 25 at 49.) Defendants also claim there is no need to reinitiate consultation simply because the Fort overestimated recharge amounts in its 2013 mitigation measures plan. (*Id.*) The Agencies claim precipitation varies by location, and updated data still shows a groundwater surplus. (*Id.* at 50.) Moreover, the Agencies aver that the upcoming reinitiation will consider the updated precipitation rates and the best available evidence on climate change. (*Id.*) Finally, the Prucha report predicts impacts on surface flows in 2100, and for the reasons previously stated, these projections beyond the Fort's action are uncertain and do not "trigger immediate reinitiation before the Army and FWS complete a new consultation and a new

[9] At oral argument on September 21, 2021, Defendants stated informal consultation was ongoing and they "anticipate[d] completing a new consultation with the issuance of a new Biological Opinion by the end of 2022," but had not yet begun the process of reinitiation of consultation. (Doc. 38 at 26–27.)

BiOp before 2024." (*Id.* at 50–51.)

The ESA's citizen-suit provision empowers "any person" to "commence a civil suit on his own behalf" against "the Secretary where there is alleged a failure of the Secretary to perform any act or duty under section 1533 . . . which is not discretionary." 16 U.S.C. § 1540(g)(1)(C). The duties of the Secretary are delegated to FWS under 50 C.F.R. § 402.01(b). "Irrespective of whether an ESA claim is brought under the APA or the citizen-suit provision, the APA's 'arbitrary and capricious' standard applies." *W. Watersheds Project*, 632 F.3d at 481.

FWS and the action agency must reinitiate consultation if "new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered" or "a new species is listed or critical habitat designated that may be affected by the identified action." 50 C.F.R. §402.16(b), (d). If the court finds the record is insufficient to support the agency's action, "the proper course, except in rare circumstances, is to remand to the agency for additional investigation or explanation." *Fla. Power & Light Co. v. Lorion*, 470 U.S. 729, 744 (1985).

The reinitiation issue is not mooted simply because there are plans to reinitiate consultation in the near future. *See Nw. Envtl. Def. Ctr. v. United States Army Corps of Eng'rs*, 479 F. Supp. 3d 1003, 1027 (D. Or. 2020). Here the Agencies must reinitiate formal consultation because the Fort overestimated the groundwater credit for the PPF easement. *See Section* IV(h). This oversight requires reinitiation because "the project's net effect on listed species and their habitat will be greater than previously thought." *See Pacificans for a Scenic Coast v. Cal. Dep't of Transp.*, 204 F. Supp. 3d 1075, 1092 (N.D. Cal. 2016).

Accordingly, IT IS ORDERED:

1) Motion to Complete or Supplement the Administrative Record is GRANTED IN PART and DENIED IN PART to the extent provided herein. (Doc. 24).
    a. The Court supplements the Administrative Record with the ER, the Deed of Perpetual Conservation Easement for the PPF, and the North Dakota State University article entitled *Selecting a Sprinkler Irrigation System*.
    b. The Court supplements the Administrative Record with the CCRN

Presentation, the Climate Science Report, and the Prucha Hydrology Report for the sole purpose of considering Plaintiffs' allegation that Defendants violated their substantive duty when they refused to reinitiate Section 7 consultation.

c. The Court will not include the AzRA in the Administrative Record.

2) Plaintiffs' Motion for Summary Judgment is GRANTED IN PART and DENIED IN PART to the extent provided herein. (Doc. 17.)

3) Defendants' Combined Cross-Motion for Summary Judgment is GRANTED IN PART AND DENIED IN PART to the extent provided herein. (Doc. 25.)

4) The Fort and FWS must reinitiate a formal Section 7(a)(2) consultation and formulate a superseding BiOp that conforms with the terms of this Order.

5) This case is DISMISSED.

Dated this 31st day of March, 2022.

Honorable Raner C. Collins
Senior United States District Judge